

Anxiety among flood victims: A psychological study

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ABSTRACT

In recent years, a noteworthy attention to health security has been observed worldwide. Improved wellbeing that reduces the effects of environmental disasters also provides an opportunity to understand health in the context of disaster vulnerability. Painful changes and disruptions to one's life provide valuable insight into the psychological effects on the victims. Sudden natural disasters are often believed to cause not only widespread death but also massive social disruption and outbreaks of epidemic disease and famine, leaving survivors entirely dependent on outside relief. Flooding has various impacts on the affected population in term of damage to property, destruction of property and loss of life. Flood creates sufferings, pain and agony among the victims. The anxiety disorder represents a failure to either elect an adaptive response or to inhibit a maladaptive response given a situation. The prime objective of the present investigation is to identify the psychological effect of anxiety of the flood victims of Madhepura district, Bihar, India. District Madhepura was one of the worst hit areas of the flood disaster and the people of this areas sufferings from various problems loss of life and property, feeling of uncertainty, long term rehabilitation planning include anxiety. The sample of this study is comprised of 1000 adults, in which 500 males and 500 females of the population. Beck-Anxiety Inventory (Beck, 1961, 1996) has been administered without discriminating any cast and religion.

Keywords: *Flood, Psychological Effects, Mental Health, Anxiety, Flood Victims, Wellbeing*

A flood is too much water in the wrong place, whether it is an inundated city or a single street or a field flooded due to a blocked drain. Among the trigger mechanism are dam or levee failures; more rain than the landscape can dispose of; the torrential rains of hurricanes; tsunami; ocean storm surges; rapid snow melts; ice flows blocking a river; and burst water mains. Flooding is generally defined as any abnormally high stream flow that overlaps the natural or artificial banks of a stream. Flooding is a natural characteristic of rivers, but it is now the most frequent type of major disaster. Over the last 10 years, floods in Europe have killed more than 1000 people and affected over 3.4 million

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others. In common with other types of major incidents or disasters, the effects on people's health, relationships and welfare can be extensive. However, flooding also stands out some other types of disasters, because, often it is possible to prevent flooding by using flood-prevention measures, and because of the lengthy recovery period afterward, which increases the risk of stressors arising and the impact of worry about recurrence on people who are affected by flood.

In 2009 severe flood struck in the Kosi region of Bihar, India that left hundreds of thousands of resident's homeless and destroyed many infrastructural and agricultural projects. The result of these floods seems that a majority of people starts experiencing mental stress, depression, anxiety and especially flood phobia. Such disaster left unforgettable and most horrifying impacts on their minds which results in psychological disorder. Also the witnessing destructions of life and property made different kinds of psychological disorders in many people including sufferers.

REVIEW OF LITERATURE

Anxiety and Flood Victims

Anxiety is defined as apprehension about some unknown phenomena. Constant worry is the basic feature of anxiety. The root of anxiety lies in unconscious conflict between id and superego. Anxiety involves state of apprehension. Unlike fear, where the cause is known, in case of anxiety cause is unknown. May (1950) defined anxiety as "the apprehension cued off by a threat to some value which the individual holds essential to his existence as personality" Anxiety symptoms can be broadly classified in four groups. Cognitive symptoms: Indecisiveness, worry, impaired attention and concentration, memory impairment; Affective/emotional symptoms: Nervousness, anger, sadness; Physical symptoms: Muscle tightness, disturbed sleep, body-aches, high blood pressure, dry mouth, etc. Behavioral Symptoms; Irritability, impulsivity etc. Anxiety is a state of diffuse arousal following the perception of a real or imagined threat. This fundamentally experiential, future oriented, self-focusing emotion at time can be adaptive, and as anticipatory problem-solving thoughts are triggered. According to Freud in Strongman (Strongman, 1995), anxiety is caused by threats or harassment individuals received. Anxiety is part of the natural instinct for self-safety stemming from emotional shock and fear of castration. Concerns create a sense of panic. Reality due to concerns result in bitter experience that the perception of the environment poses a threat in dealing with the fear of an environmental condition. This effect is sometimes able to affect to a lifetime.

Negative changes in a person's life circumstances following a disaster appear to have as important an effect on psychopathology as much as the direct experience of the disaster (Irmansyah et al., 2010). Three studies include General Anxiety Disorder, in Vietnam, pre typhoon casernes and exposure were predicative of GAD (Amestaadtler et al., 2009), in India following super-cyclone Orissa found a rate of 12% of school children in their middle teens (Kar et al., 2004). Patrick and Patrick (1981) found a level of 84% having symptoms of anxiety. Increased fears and anxieties are common and may or may not be associated with the traumatic events (Yule, 1994). The result can be the emergence of phobias or generalized anxiety.

Nasir, Zainah & Khairudin (2012) concluded that flood is one of the many types of natural disaster that affect human lives. Often the focus of such disaster has been on physical loss. On the basis of review it can concluded that the aftermath of traumatic events such as

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anxiety and depression and disaster like flood are often accompanied with psychological symptoms that persist in some people, long after the stressful events are over.

RESEARCH METHODOLOGY

Sample and Sample area:

Sample from the flood victims for this research, is drawn from Madhepura, district of Bihar. The sample of this study comprised of 1000 adults (500 females and 500 males) of the population and age range was between 16-70 years, Data were collected from the Mohallas/Colonies of town areas and villages in the flood affected areas of Madhepura district of Bihar.

Objectives of the study:

The present investigation is an effort to examine the level of anxiety, which is caused stressful life of flood victims. The prime objective of the present research is to examine how this mental problem persists and how this can be maximize the wellbeing and minimize or succumbed to make the victims as mentally healthy.

Variables:

The independent variable of present study is Anxiety and the dependent variable is Age of Flood victims of Madhepura district.

Tools:

A structured psychometrically sound instruments focusing on magnitude and pattern of the psychological problems as Anxiety Scale (Beck Anxiety Inventory, Beck, 1990) has been administered.

Procedure:

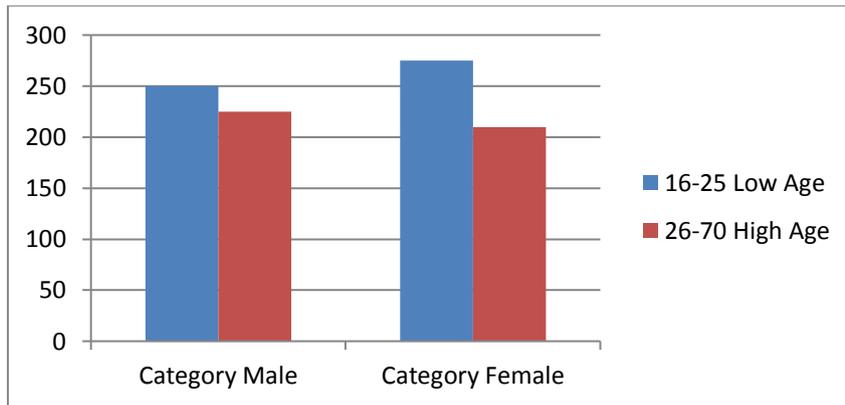
This research is cross processing descriptive study and it conducted in the town areas and villages of Madhepura, district of Bihar. The massive Kosi River floods of August 2008 caused unprecedented loss to lives, livelihood, infrastructure and property in north-eastern Bihar particularly Madhepura district. The Kosi burst its embankments and changed course, inundating areas of Bihar that had not experienced such flooding for half a century. About 1,000 villages in five districts (Araria, Madhepura, Purnea, Saharsa and Supaul) were badly affected, involving three million people, of whom about one million were evacuated. Almost all households (around Rs. 880 crores/\$ 195 million), across 93% social groups, reported income losses of more than 50%, during the first three months after the flood. The Data were collected using through the questionnaire of Anxiety Scale (BAI). BAI is self-report, measures anxiety in adults, is a 21-items multiple-choice is well accepted inventory.

STATISTICAL ANALYSES AND RESULTS

The purpose of this study was to examine anxiety of flood victims in relation to age. Samples from in and around urban and rural areas of the population of Madhepura district of Bihar were collected and included in the present study. We have applied “t” test for the purpose. Description of samples on the basis of age and gender is given in figure-1.

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Figure-1



On the basis of the findings we can say that flood is one of the most common and severe forms of natural disaster. It can result in direct economic and property losses, physical injuries, deaths and psychological injuries such as anxiety. The study explored that age is related to anxiety among flood victims.

t-test is a statistical procedure to find the significance of difference between two groups. The result of t-test is given in Table-1.

Table-1 t-test between Anxiety and Age of Flood Victims

Independent Sample Test										
		Levene's Test for Equality of Variance							95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std Error difference	Lower	Upper
Anxiety of Flood Victims	Equal Variances Assumed	32.594	.000	-2.373	998	.018	-67021	.28249	-1.224	-115
	Equal Variances not assumed			-2.481	908.355	.014	-67021	.27229	-1.204	-135

Our research in the present endeavour is to know the effect of anxiety on age of male and female gender. To solve this problem we have calculated t-test with the help of SPSS, have been presented in Table- 1. In Table- 1 gives the t-values, degree of freedom, significant level and 95% confidence interval for Mean. The t-value of anxiety is $t = -2.37$ and df is 998, it is insignificant as significance value (for Two-tailed test) is 0.018 which is >0.05 .

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Table: 2 Descriptive statistics of Anxiety and Age of the Flood Victims

Descriptive										
			N	Mean	Std. Deviation	Std. error	95% Confidence Interval for Mean		Minimum	Maximum
							Lower Bound	Upper Bound		
Anxiety of Flood Victims	of	16-25 Low Age	540	58.853	5.281	.227	58.40	59.30	40.00	63.00
		26-70 High Age	460	59.523	3.216	.149	59.22	59.81	50.00	63.00
		Total	1000	59.162	4.462	.141	58.88	59.43	40.00	63.00

We have computed descriptive analysis (Table-2) and the table indicates that persons of high age (26-70 years) perceive more anxiety due to flood than the persons of low age (16-25 years). It can affect the person indiscriminately in choosing by any level of age. Descriptive analysis reveals that there are differences in perception of anxiety among the flood victims as per their age range. Mean values of high range of age 59.16 as compared to their counterparts (M=58.85). In other words, we can say that anxiety affects age as a whole.

The findings of present study depict that floods are one of the most common and severe forms of natural disaster, It can result in direct economic and property losses, physical injuries (Huang P, Tan H, Liu A, Feng S, Chen M, 2010). Such disaster left unforgettable and most horrifying impacts on their minds which results in psychological disorder known as Anxiety.

CONCLUSION AND SUGGESTIONS

The last few years have seen a notable increase in the number and impacts on natural disasters particularly floods in Bihar, either because they are now better measured, affect more people or in fact occur more frequently and are more severe- or probably due to the combination of all or part of them. Flooding is one of the natural disasters that have an impact on victims of Madhepura district of Bihar. Flood leads to unpleasant feeling such as anxiety and depression. These factors affect the victims involved. This effect is known as cognitive dissonance where one is faced with situations that affect their faith in everyday life and cause a person to experience negative emotions. Stress, anxiety and depression experienced may involve the flood victims of Madhepura for a short period and sometimes it can be long-term. However, since the psychological factors are implicated both theoretically and empirically in the genesis of such behavior, these actions will be included as mental health outcome of interest.

While examine the anxiety, it was found that there was an increase in mental distress among affected population. There were large differences between the affected and unaffected group in terms of anxiety. The flood victims reported poorer general health, experienced more limiting pain in their work activities, and experienced more problems in work or daily activities as a result of physical problems.

The study provides valuable information on the general and mental health problems among the Kosi flood disaster. Better interventions prepared for victims and institutional help are needed to provide psycho-social support with counseling sessions and also to improve

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mental health after a disaster, which help them in preparing and mitigation the effect of disaster. Also, we should promote flood victims to share their voices and experiences, and provide them with multiple opportunities to disclose their sufferings and pains. It is also needed to enhance assessment, with follow up study to address the needs of survivors in post disaster context. It is hoped that the outcomes of this study will further enhance the knowledge of these theories as an integrated model for flood victim's quality of life.

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Conflict of Interest

The author declared no conflict of interest.

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